

5 A Day Behavior and Knowledge of Recommendations in Relation to Health Communication in the Health Information National Trends Survey (HINTS)



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National 5 A Day for Better Health Program Recommendations

- The goal of the National 5 A Day for Better Health Program is to increase the consumption of fruits and vegetables in the United States to 5 to 9 servings every day.

<http://www.5aday.gov/index-about.shtml>

Fruit and Vegetable (F/V) Intake U.S.

NHANES, 2000 (Thompson personal communication)

- Median as measured by multiple 24 hour recalls=4.38 servings/day

BRFSS, 2000 (Serdula et al.2004)

- Mean = 3.37 servings/day

Study Objectives

- Evaluate knowledge of the F/V recommendation and F/V consumption
- Characterize 4 population subgroups based on demographic and communication factors

Assessment of F/V Message Awareness and Consumption

Knowledge of recommendation

How many servings of fruits and vegetables do you think a person should eat each day for good health?

Dichotomous variable:

Informed = Know recommendation is 5+ servings F/V per day

Uninformed = Don't know recommendation (<5 servings F/V per day)

F/V Consumption

Derived F/V variable = sum of servings per day of vegetables, potatoes (non-fried), fruit, and fruit juice

Dichotomous variable:

Complier = Ate 5+ servings of F/V per day

Non-Complier = Ate < 5+ servings of F/V per day

Analysis

SUDAAN

HINTS statistical weights

Bivariate Analyses (N = 6369)

- Cross-tabulations

Multivariate Analyses (N = 5673)

- Multilogistic Regression

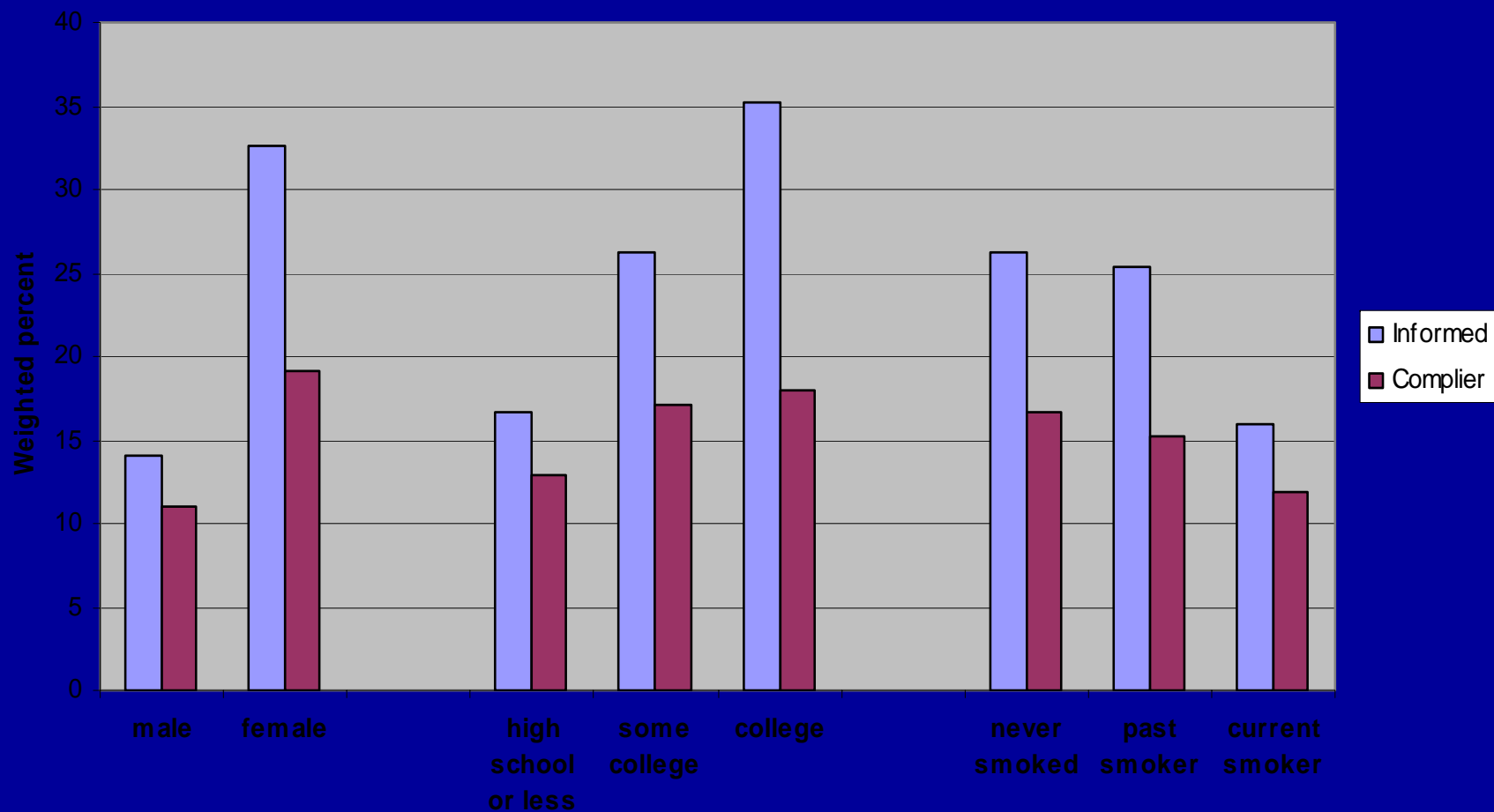
Outcome & Subgroup Definitions

	Ate 5+ F/V a day	Ate <5 F/V a day
Know Recommendation (5+ servings/day)	Informed Complier 6.8%	Informed Non-Complier 17.2
Do not know Recommendation (< 5 servings/day)	Uninformed Complier 8.3%	Uninformed Non-Complier 67.7%

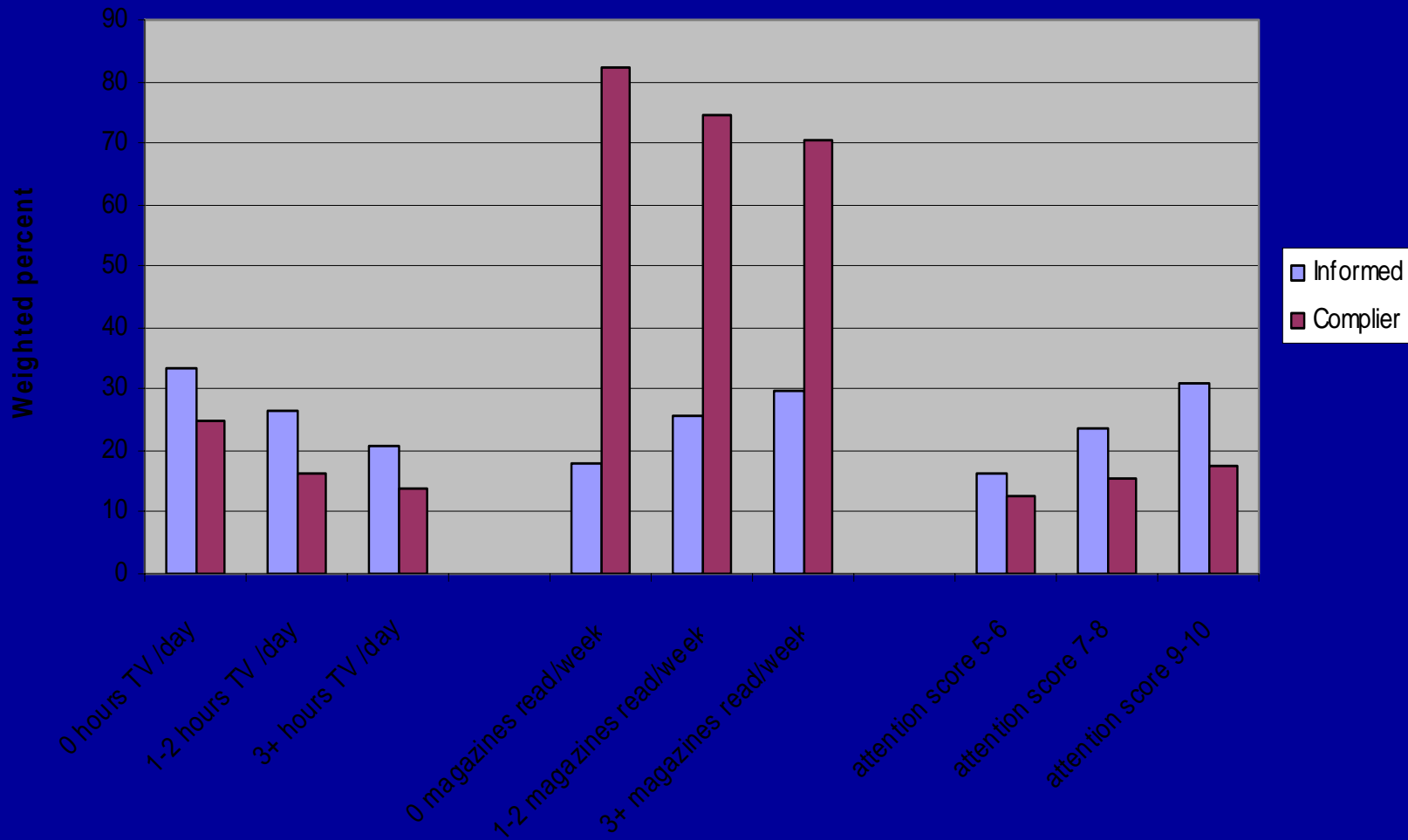
Descriptive Statistics

- Informed = 23.7%
- Compliant = 15.2%
- Total servings consumed per day
 - Mean (SD) = 3.08 (1.93)
 - Median = 2.66
- Total servings consumed per day
 - Among informed: Mean (SD) = 3.87 (2.09)
Median = 3.42
 - Among uninformed: Mean (SD) = 2.83 (1.79)
Median = 2.46

Percent Informed and Compliant by Select Sociodemographic Characteristics



Percent Informed and Compliant by Select Communication Variables



Multilogistic Model

Predictors

Gender

BMI

Education

Race/Ethnicity

Smoking

Exercise

Age

TV hours/ weekday

Radio hours/weekday

Newspaper/week

Magazines/week

Information Attention/Seeking
(Finney-Rutten)

Outcomes

Informed Compliers

Informed Non-Compliers

Uninformed Compliers

Uninformed Non-Compliers *

**reference group*

Key Multilogistic Regression Results

Sociodemographic Characteristics Informed Complier vs. Uninformed Non-Compliers

	OR	95% CI
Female	1.00	
Male	0.20	0.15-0.28
<= High School	1.00	
Some College	1.68	1.23-2.28
College Grad	2.57	1.91-3.47
Never Smoker	1.00	
Past Smoker	1.06	0.78-1.45
Current Smoker	0.38	0.24-0.59

Key Multilogistic Regression Results

Communications/Information Seeking Variables Informed Complier vs. Uninformed Non-Compliers

	OR	95% CI
Television hours/weekday [†]	0.92	0.84-1.00
Magazines/week [†]	1.08	1.01-1.16
Information Attention/Seeking Score [^]	1.14	1.05-1.25
[†] <i>truncated at 16 hours</i> [^] <i>range 5-10</i>		

Conclusions

- Majority of the population
 - do not know national F/V consumption recommendations
 - do not consume recommended amounts
- Being informed does not necessarily translate to changes in F/V intake
- Differences in key subgroups along demographic and communication lines
- These findings may prove useful in developing programs and/or interventions to increase F/V consumption among specific groups (e.g., men, smokers, less educated)

EXTRA SLIDES

Limitations

- Cross-sectional Data
- Short F/V screener
- Broad assessment of communications variables

Strengths

- Nationally representative survey
- Can examine factors that impact both knowledge and consumption
- Examine the intersection of knowledge/behavior as related to demographic and communications variables

Survey Content (Demographics)

- Gender
- Age
- BMI
 - <25, 25-29.00, >=30.00
- Education:
 - <=high school, some college, college
- Race/Ethnicity
 - White, Other (black, Hispanic, Indian, Asian, Hawaiian)
- Smoking
 - Never, past, current
- Any Exercise in the Past month
 - Yes/No

Survey Content (Communications)

- Hours of Television per weekday
- Hours of Radio per weekday
- Number of days a newspaper was read in the last week
- Number of days a magazine was read in the last week
- Attention to information about health/medical topics
 - TV, Radio, Newspaper, Magazines, Internet
 - Utilized combined variable created by Lila Finney (NCI)

Data Source



Baseline data collected 2002-2003

Computer-Assisted Telephone Interview

Random Digit Dial (RDD)

National Probability Sample of adult Population age 18+

Vehicle to research health communication and conduct surveillance

-Nelson, DE et al. Journal of Health Communication, In Press 2004

Discuss Missing Data

HINTS Dataset = 6369 observations

Our Analytic Dataset = 5673 observations

Difference=696 or 11%